

Remarks

In response to the Office Action mailed August 24, 2006, the Applicants respectfully request reconsideration in view of the following remarks. Claims 1, 14, 25, 36, 43, 49, 60, 69, 78, and 84 have been amended. The claims have been amended to clarify that the packet state includes a congestion state and that the detection and correction of network overloads and congestion occurs at one of a network node and a network node link before network customers are affected. Support for these amendments may be found on page 5, lines 15-19 and on page 17, lines 1-4 in the Specification. No new matter has been added.

Claims 1-5, 7-39, and 41-87 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Messinger et al. (U.S. 6,687,750, hereinafter “Mes”) in view of Cen (U.S. 6,738,349).

Applicant’s Statement of the Substance of the Interview

A telephonic interview between the undersigned representative for the Applicants and the Examiner was held on January 22, 2007 to discuss the Mes and Cen references as applied to the rejection of independent claim 1 with respect to a feature reciting utilizing a histogram file to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion before network customers are affected. The undersigned representative pointed out that Mes and Cen do not appear to disclose the detection and correction of network overloads and congestion but rather merely discuss using network monitoring for tracking unauthorized users or “hackers” who attempt to obtain access to one or more network computers.

Claim Rejections - 35 U.S.C. §103

In the Office Action, claims 1-5, 7-39, and 41-87 are rejected as being unpatentable over Mes in view of Cen. The rejection of these claims is respectfully traversed.

Amended independent claim 1 specifies a method of monitoring a packet-switched network using traffic logs. The method includes: (a) creating a histogram file; (b) generating a traffic log at a first location within the network, the traffic log containing a plurality of values, the plurality of values including a network entry point, a network exit point of the packet, and a packet state, wherein the packet state includes a congestion state; (c) transferring the traffic log from the first location to a second location; (d) storing the traffic log generated by the network at the second location; (e) analyzing the stored traffic log to determine the time of creation of the traffic log and the network entry and exit points of the packet; and (f) updating the histogram file using at least the time of creation of the traffic log, at least the packet state and at least one of the entry and exit points of the packet, wherein the histogram file is utilized to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and network node link before network customers are affected.

It is respectfully submitted that the combination of Mes and Cen fails to teach, disclose, or suggest each of the features specified in amended independent claim 1. For example, the cited references fail to disclose that a histogram file is utilized to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and a network node link before network customers are affected.

Mes discusses a network traffic visualization application which enables the rapid assimilation of substantial amounts of information involving the activities of various components. The information may be collected by one or more routers through which data passes as it transits a network. The information is stored and subsequently retrieved for display. The activity of the components is monitored and data is extracted by the application between a

starting time and an ending time. The extracted data is then compiled into an information file and stored for display at stated times or at the request of a network administrator. The application is used for tracking unauthorized users or “hackers” who attempt to obtain access to one or more network computers. See Col. 1, line 55 through Col. 2, lines 18 and Col. 4, lines 41-62.

As noted in the Office Action, Mes fails to disclose a traffic log containing a plurality of values which include a packet state. Thus, Mes also fails to disclose a packet state including a congestion state as specified in amended claim 1. Furthermore, Mes also fails to disclose the utilization of a histogram file to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and network node link before network customers are affected. In particular, as discussed above, Mes discusses that extracted data is compiled into an information file after a network monitoring interval and then subsequently displayed. Thus, Mes does not discuss using a histogram file to monitor network conditions in near real-time as the network conditions reflected in the information file of Mes have already been monitored and extracted once the file is displayed to a user (e.g., and administrator). Thus, as discussed in Mes, the administrator must wait until after the monitoring has been concluded, must wait until after the collected information has been compiled into a file, and then must wait until the compiled file has been displayed to a user (at one of a stated time or upon request). Thus, it appears that Mes does not disclose near real-time monitoring. Moreover, Mes also fails to disclose the detection and correction of network overloads and congestion at one of a network node and a network node link before network customers are affected. As discussed above, Mes merely discusses tracking unauthorized users or “hackers” who attempt to obtain access to one or more network computers.

Cen, relied upon to allegedly cure the deficiencies of Mes, also fails to disclose that a packet state includes a congestion state or that a histogram file is utilized to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and network node link before network customers are affected. Rather, Cen discusses the non-intrusive measurement of end-to-end network properties. Ingress and egress monitors intercept data units entering and leaving a network path through a network to obtain end-to-end latency of the network path and end-to-end packet loss measurements. See Col. 1, line 65 through Col. 2, line 20. Cen however, fails to disclose a traffic log including a plurality of values including a congestion state for a packet (see Col. 2, lines 46-50) and further fails to disclose or suggest (as conceded in the Office Action), the monitoring of network conditions in near real-time to detect and correct network overloads and congestion at one of a network node and network node link before network customers are affected. Instead, Cen merely discusses monitoring packets as they travel through a network to measure end-to-end latency or packet loss.

Based on the foregoing, the combination of Mes and Cen fails to disclose each of the features specified in amended independent claim 1. Therefore, claim 1 is allowable and the rejection of this claim should be withdrawn. Amended independent claims 14, 25, 36, 43, 49, 60, 69, 78, and 84 specify similar features as amended independent claim 1 and are thus allowable for at least the same reasons. Dependent claims 2-5, 7-13, 15-24, 26-35, 37-39, 41-42, 44-48, 50-52, 54-59, 61-68, 70-77, 79-83, and 85-87 are also allowable for least the same reasons as independent claims 1, 14, 25, 36, 43, 49, 60, 69, 78, and 84 from which they depend. Accordingly, the rejection of claims 1-5, 7-39, 41-52, and 54-84 should be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is invited to call the Applicants' attorney at the number listed below.

The present Amendment is being filed with a request and fee for a two-month extension of time. No additional fees are believed due. However, please charge any additional fees or credit any overpayment to Deposit Account No. 50-3025.

Date: January 24, 2007

Respectfully submitted,

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